

CLAIMS

1. A device for removing solids from a fluid containment space, said device comprising a hood (11) arranged or intended to be arranged at a bottom surface of the fluid containment space, at least one inlet opening (14a) being provided on a first side (15a) of the hood for allowing fluid communication from the fluid containment space exterior of the hood (11) to an inner space (16) of the hood, the device further comprising drain means (17, 18) for withdrawing fluids and fluidized solids from the inner space (16) of the hood and flushing means (19a) for directing flushing fluid via the fluid containment space exterior of the hood towards said at least one inlet opening (14a), **characterized in** that at least one outlet opening (20a) is provided on said first side of the hood (15a) on a level above the respective inlet opening (14a) for allowing fluid communication from the inner space (16) of the hood to the fluid containment space exterior of the hood, and that the hood (11) is provided with means (21) for directing fluids through the respective outlet opening (20a) on said first side (15a) of the hood from the inner space (16) of the hood to the fluid containment space exterior of the hood in an essentially horizontal direction or in a direction towards the bottom surface of the fluid containment space.
2. A device according to claim 1, **characterized in** that said directing means (21) is arranged to direct fluids through the respective outlet opening (20a) on said first side (14a) of the hood from the inner space (16) of the hood to the fluid containment space exterior of the hood in a direction essentially opposite the flushing direction of the flushing means (19a) arranged on the first side (15a) of the hood.

3. A device according to claim 1 or 2, **characterized in** that at least one inlet opening (14b) is provided on a second side (15b) of the hood opposite the first side (15a) thereof for allowing fluid communication from the fluid containment space exterior of the hood to the inner space (16) of the hood, flushing means (19b) being provided for directing flushing fluid via the fluid containment space exterior of the hood towards said at least one inlet opening (14b) on the second side (15b) of the hood and at least one outlet opening (20b) being provided on said second side (15b) of the hood on a level above the respective inlet opening (14b) for allowing fluid communication from the inner space (16) of the hood to the fluid containment space exterior of the hood, and that the hood (11) is provided with means (21) for directing fluids through the respective outlet opening (20b) on said second side (15b) of the hood from the inner space (16) of the hood to the fluid containment space exterior of the hood in an essentially horizontal direction or in a direction towards the bottom surface of the fluid containment space.
4. A device according to claim 3, **characterized in** that said directing means (21) is arranged to direct fluids through the respective outlet opening (20b) on said second side (15b) of the hood from the inner space (16) of the hood to the fluid containment space exterior of the hood in a direction essentially opposite the flushing direction of the flushing means (19b) arranged on the second side (15b) of the hood.
5. A device according to any of the preceding claims, **characterized in** that the hood (11) is elongated having an inverted V-shape as seen in cross-section.

6. A device according to any of the preceding claims, **characterized in** that the respective outlet opening (20a, 20b) is provided between a side wall (23a, 23b) of the hood and a top part (22) of the hood.
- 5
7. A device according to claim 6, **characterized in** that said directing means is constituted by a lower surface (21) of the top part (22).
- 10
8. A separator comprising a separator vessel (40), **characterized in** that a device (10) according to any of claims 1-7 is provided at the bottom surface of the separator vessel (40).
- 15
9. A method for removing solids from a fluid containment space, wherein flushing fluid is directed by flushing means (19a) towards at least one inlet opening (14a) on a first side (15a) of a hood (11) arranged at a bottom surface (12) of the fluid containment space (13) so as to force fluids and fluidized solids from the fluid containment space exterior of the hood into an inner space (16) of the hood, **characterized in** that a part of the fluids entering the inner space (16) of the hood is withdrawn by drain means (17, 18), and that another part of said fluids is made to flow from the inner space (16) of the hood back to the fluid containment space (13) exterior of the hood in an essentially horizontal direction or in a direction towards the bottom surface (12) of the fluid containment space through at least one outlet opening (20a) provided on said first side (15a) of the hood on a level above the respective inlet opening (14a).
- 20
- 25
- 30
10. A method according to claim 9, **characterized in** that fluids are directed through the respective outlet opening (20a) on said first side (15a) of the hood from the inner space (16)

of the hood to the fluid containment space (13) exterior of the hood in a direction essentially opposite the flushing direction of the flushing means (19a) arranged on the first side (15a) of the hood.

5

11. A method according to claim 9 or 10, **characterized in** that flushing fluid is directed by flushing means (19b) towards at least one inlet opening (14b) on a second side (15b) of the hood opposite the first side (15a) thereof so as to force
10 fluids and fluidized solids from the fluid containment space exterior of the hood into the inner space (16) of the hood, and that a part of the fluids entering the inner space (16) of the hood is made to flow from the inner space (16) of the hood back to the fluid containment space (13) exterior of the
15 hood in an essentially horizontal direction or in a direction towards the bottom surface (12) of the fluid containment space through at least one outlet opening (20b) provided on said second side (15b) of the hood on a level above the respective inlet opening (14b).

20

12. A method according to claim 11, **characterized in** that fluids are directed through the respective outlet opening (20b) on said second side (15b) of the hood from the inner space (16) of the hood to the fluid containment space (13) exterior of the hood in a direction essentially opposite the
25 flushing direction of the flushing means (19b) arranged on the second side (15b) of the hood.

13. A method according to claim any of claims 9-12, **characterized in** that the flushing means (19a, 19b) during a first
30 mild flushing mode are made to jet flushing fluid at such a rate that the circulation of fluids between the fluid containment space (13) exterior of the hood and the inner space (16)

of the hood will essentially only affect the fluids in the lower part of the fluid containment space and leave the fluids in the upper part of the fluid containment space essentially unaffected by the circulation.

5

14. A method according to claim 13, **characterized in** that the flushing means (19a, 19b) during a second heavy flushing mode are made to jet flushing fluid at a higher rate than during the mild flushing mode.